

1) Identify ways that corporations are a sustainability problem, referencing at least four examples from films you watched this semester.

Corporations are known to be some of the top contributors and creators of sustainability problems. While in some cases corporations do act in the best interest of society and the environment, it seems that more often than not they do not. The main contributing factors to corporate sustainability problems are legal structure/obligations, human behavior, and perceived performance expectations. In other words, being profit-driven, assuming limited liability for personal actions, and only valuing few stakeholders, when combined, make a recipe for disaster. As a result of these causes, come numerous externalities affecting both society and the environment. In the *Yes Men Fix the World*, we see how companies like Dow Chemicals/Union Carbide in regards to the Bhopal disaster are not fully held accountable for spills and accidents. Corporations have little to no incentive to make corrective actions beyond the minimum legal requirements, which often entail a simple clean up. In the *Persuaders* we see how corporations have a strong influence, which some would see as manipulation, over society and consumers. Advertisers and marketers with fiscal and scientific resources can pinpoint consumer behavior to microscopic variables, often resulting in a lack of consumer choice. In *The Corporation* we see how companies like Nike encourage and utilize loose labor laws and outsourcing. Not only does this concentrate jobs in few heavily populate countries and regions, but it also encourages poor working conditions and minimum pay. In *The End of the Line*, we see how companies like Mitsubishi can have a severe and immediate impact on the environment. Mitsubishi operates some of the largest fisheries and boat fleets in the world. They are dominant catalysts behind the

near extinction of blue fin tuna. Overall, corporations can be both creators and contributors to sustainability problems. Not all corporations are bad; but, legal protection, profit, and human tendencies often result in poor decision-making, these decisions resulting in externalities that affect society, the economy, and the environment.

8) Design a film intended to educate a particular audience about a sustainability problem. Describe the audience you intend to reach, and its characteristics (biases, ignorance, expertise, etc); the aim of the film; its narrative structure and its content.

The film I would write, direct, and produce would be called *The War for Winter*, addressing an audience of winter outdoor sports athletes and enthusiasts alike. The film would likely be attractive to all outdoor and action sports enthusiasts. The central narrative of the film would address the future impact that global warming could and will have on winters if corrective actions are not taken. Whether winters totally disappear, or simply shift, it will surely disrupt the season that many love dearly. The aim of the film would be to encourage outdoor sports enthusiasts to become active in the fight against global warming. The film will keep audiences entertained with action footage of athletes performing in their respective sports, but the film will be packed educational and informative content. Such education will be in the form of graphical predictions, best practices, and interviews. The predictions will be used to show enthusiasts how soon change could come and what permanent impact global warming could have on winter sports and activities. The best practices will show viewers how and what they can do to limit their impact on the environment and encourage others to do the same. One such example would be how skiers can hike or skin up a mountain and ski down instead of using chairlifts, snowmobiles, helicopters, and snowcats. An example of a possible interview candidate would be Auden Schendler. In his book *Getting Green Done*, he shares his experiences as the environmental

director at Aspen Snow Company. Schendler is one of the key drivers of sustainability in the snow sports world. The film will utilize subtle fear, more so it will encourage enthusiasts to protect and preserve the lifestyle they enjoy. The film will inherently be biased towards global warming being a reality, which it is... The film will be attractive to winter enthusiasts, companies involved in snow sports industries, and nearly all environmentalists. I see a film with winter athlete role models being very successful at capturing the attention of today's youth and promoting overall sustainability.

17). Write a 400-word biosketch that describes where you will be and what you will have accomplished twenty years from now. The biosketch should be narrative rather than resume style. Include basic biographical and educational information, the expertise you have built and have become known for, and a brief description of important projects you have been a part of over this period of time.

Kyle Maggy was born just north of the great Adirondack Park in northern New York State. From a young age, Kyle fell in love with the outdoors; learning to ski, climb, and enjoy nature's inherent beauty. In high school, Kyle was heavily involved in sciences, mathematics, and engineering. However, prior to beginning his undergraduate education at Rensselaer Polytechnic Institute, Kyle chose to approach his love for the environment and outdoors from the business side of the educational spectrum. He received a B.S. in Business and Management with a concentration in New Venture Development, and minors in both Sustainability and Communication. Immediately following his undergraduate education, Kyle moved on to study Real Estate Development with a concentration in Sustainable Development at New York University. After receiving his Masters in Real Estate Development, Kyle moved to the Northwest with his wife Lauryn Menard-Maggy. Kyle and his wife Lauryn, who studied Product Design at Rensselaer Polytechnic Institute and later obtained a Masters of Architecture from Columbia, started a sustainable development and

architecture firm in Seattle, Washington. Maggy & Company, which started with restoration and adaptive reuse projects, quickly grew into a full service architectural and development firm, winning numerous awards for their environmental advocacy, ecological design, reclaimed material use, and of course, stunningly beautiful properties. As Maggy & Company continued to grow; Kyle began to write books sharing his expertise in sustainable development. His book, *Building a Green Nest: The Developers Guide to Sustainable Design*, became an instant New York Times bestseller. Later in Kyle's career, Kyle began to consult the government on green development. Working with localities, states, and the federal government. Kyle was soon after granted honorary PHD's from both Rensselaer Polytechnic Institute and New York University. Kyle was appointed as Director of City Planning for Seattle. He began working closely with Vancouver neighbors to match their previous pledge of becoming the most sustainable city in the world. Following his term as city planner, Kyle campaigned and was elected as the Mayor of Seattle. During his time as mayor, Kyle converted every city owned building into LEED platinum buildings. After 4 consecutive mayoral terms, Kyle campaigned and was elected as governor of Washington State. During his 3 terms as governor Kyle continued to spread his sustainability ideas. A New York Times article dubbed Washington State as the "greenest" state in the nation. Shortly following this success, Kyle received a noble peace prize for his dedication to sustainability.

10) Explain, from your point of view, what the US government should do to advance environmental sustainability. What should the US government *not* do? Together, your lists should include at least six items. Include concrete example to illustrate your points.

It is the age-old question in the United States, - what should the government do and not do?

What powers does the government have, and what rights to the people have? In a perfect

world it would make sense that there would be little regulation, because people would act in a way that would limit their impact on other people and the planet. But in the world we live in today, it is necessary that the US government take action. I believe the US Government should increase incentives for clean energy and tech producers, encourage households to move towards energy efficiency and even independence with incentives, mandate environmental sustainability education in public schools, close old tax breaks and loopholes for fossil fuel producers, change subsidies in agriculture so they encourage food quality and nutrition over quantity and low cost, continue to expand natural parks, consolidate environmental organizations and resources, and create sustainable physical infrastructure. It is a touchy subject when it comes to a government mandating a certain way of life, even if it is an ecologically friendly one. My suggestions above impose very little on the rights citizens currently have, you can think of it as a similar ideology to positive reinforcement in dog training, except for businesses and individuals. Incentives, rewards, and tax break should only reward behavior that promotes environmental sustainability. The incentive examples above are pretty self-explanatory; they can be in the form of tax breaks, subsidies, low interest loans, etc. An example of sustainable infrastructure may be the government installing high-speed train networks or electric charging stations at highway rest stops. What the government should not do is mandate people to change their lifestyle. Examples include forcing private institutions to provide specific services, increasing taxes on the general public; use government resources to aid in environmental cleanup (make the wrongdoer clean it!), or impose any regulation that would further unite opposition forces. I am a large proponent of heavy environmental regulation, but you have to take into consideration the psyche of the opposition. To quick of a transition will just rile

the opposition. The government should discourage and penalize poor environmental behavior to the full extent in which society agrees to it. When it comes down to it, it is the democracy's decision. Government should do and do not what the people tell them. Hopefully the left, and those on the right who are environmentally conscious, will continue to grow in strength and numbers.

5) Discuss how Internet communication and other forms of new media are sustainability problems, as well as a means to sustainability solutions.

Inherently I do not believe that Internet communication or other forms of new media are sustainability problems. If anything they are a solution, replacing faxing, printing, packaging, mailing, hard copy books and manuals, paper receipts and invoices, and other out-dated and inefficient processes and technologies. What Internet communication and other new media outlets like smart phones, tablets, and the like do, is act as an amplifier to the frequency of impressions and overall reach of a piece of media. Information technology is for the most part completely unbiased; the information transmitted is a direct result of the sender. I believe it is incorrect to say the Internet and related technologies are sustainability problems. The only real downside of electronic communication is the energy consumed and waste produced from the physical computers and technological systems that run the machines, which are both growing overall year to year. However, it is to my understanding that it is better than using paper-intensive processes and technologies. In addition, there have been great advances in green computing. E-waste is a problem that was neglected for a while, but manufacturers are starting to implement solutions such as automatically taking back products when a consumer no longer wants them. The only real problem I see, which is a problem with all communication outlets, is that both sides of a debate can use them, meaning that people that do not care about sustainability can use

electronic communication to spread their message. However, unlike television, billboards, newspapers, and other more traditional media outlets, the internet is generally much cheaper to operate as far as advertising and sharing your overall message; this gives the advantage to sustainability supporters who typically have significantly less funding than more conservative and traditional interest groups. The debate over whether new outlets of media are sustainability problems is similar to the debate over whether guns are a problem, when it comes down to it, there is always a person behind the trigger or computer. Any communication technology or process is subject to the same biases and prejudices of the writer or person behind the message. It is important that all senders and receivers have fair access to the technology and abide by the rules. Overall, I believe that the Internet technologies and other new media outlets rebalance some level of power. I see the benefits of related technologies far outweighing what small side effects there are. The Internet has empowered many people and organizations to their messages with the world, and allowing many new thinkers to break through the once heavily monopolized mass media networks.

12) Identify ten developments (in education, law, media, etc) that you think would help mobilize greater public awareness of and commitment to environmental sustainability.

The one thing that is agreed upon in addressing sustainability issues is that the problems are very complex and consist of a vast array of factors. Effective solutions will pull from interdisciplinary sciences, government, economics, education, law, media, etc. In my opinion the following ten developments will contribute to generate awareness and commitment to the sustainability movement:

1. State governments should incorporate sustainability studies into high school education, by either mandating a specific sustainability course or by incorporating sustainability elements into general sciences. It would also be advisable that caring private institutions would do the same.
2. Both private and public colleges/universities should increase the number of majors and coursework related to sustainability studies, whether they are standalone studies or interdisciplinary majors.
3. Private, public, and government institutions/organizations/businesses should add offices or departments focused on organizational level sustainability. In other words, organizations should have departments dedicated to limiting their impact on the environment and societies well being.
4. Government should impose further regulation that protects the environment and society from externalities created by businesses. Such regulation should increase transparency and accountability mandates, while also banning certain toxic chemicals and regulating pollution, etc.
5. State departments should reevaluate the legal definition and rights of corporations and other business forms. Thus holding businesses more accountable for externalities and returning liabilities to individual conduct.
6. Similar to the release of *Dark Was the Night* in 2009, a compilation record of top recording artists benefiting AIDS research, concerned recording artists should team together and write songs/an album that advocates sustainability, holding both annual record releases and events benefiting sustainability advocacy organizations. In other words, we need more Bob Dylan's and less Justin Bieber's.

7. The government needs to end subsidies that are going to conventional agricultural practices and energy industries, such as corn, soy, coal, petroleum, etc. Any government incentives should mandate sustainable operations.
8. State and government organizations should install electric vehicle charging stations at all highway rest stops.
9. Various environmental and sustainability advocacy group should aggregate their power and resources to purchase a television network. The network could be highly effective in promoting environmental sustainability.
10. Environmental advocacy organizations should consolidate forces in order to pass through legislation and get environmentally concerned leaders in office. I believe the vast array of specific environmental organizations is less powerful than a united group. Something does not add up. The Green party should be larger than it is.

6) Identify key characteristics of the best environmental media (recognizing that few films or other media are likely to have more than a few of these characteristics). Reference examples from films we've seen this semester.

Successful pieces of environmental media can have a vast array of characteristics and techniques that make them stand out. These characteristics change drastically depending on the goal of the film and who it is supposed to address. Therefore, with each characteristic I will describe the type of audience I believe it would resonate the best with.

1. Comedy/Humor/Satire – Comedy is a characteristic that can be very successful in capturing the attention of both a younger audience or an audience that is less educated in environmental issues. Satire is commonly used in all sorts of media spanning from politics to business to news. It can make stories more appealing to crowds that would typically show little interest. In the case of *The Yes Men Fix the*

World, satire is used to bring attention to serious environmental issues in a fun and entertaining way. We also see satire used in shows like the *John Stewart Show* and *The Colbert Report*, which often bring up both political and environmental issues.

2. Solution Orientated/Addressing – In many environmental documentaries, fear, anger, and problem orientation are common characteristics. After watching several pessimistic films, audiences can become discouraged and lose attention. However, solution orientated films tend to be more optimistic and engaging to environmentalists and people that are on the fence on a particular subject. In solution orientated films problems are addressed, but usually avoid finger pointing and blaming. An example of a more solution-orientated film is *Fresh*. Problems that are addressed are accompanied by solutions or proposed solutions. Such as the farmer who has a moving chicken cart, the sustainable pig farmer, and the local grocery store. Similarly, the film *Switch* travels the globe looking at renewable energy sources and assessing what environments they best work in. Overall, it is very important to address problems, but is necessary to maintain some level of hope to keep audiences engaged and encourage them to act.
3. Specific Focus – While it is necessary to address all the environmental and sustainability problems that exist, it is best done in separately. Addressing too many unique problems in a single film can make the film very hard to follow along with and overwhelming. The exception would be if all the problems or solutions addressed fell under a specific category such as agriculture. The film *The Corporation* attempts to diagnose corporations as psychopaths. While this is truly a unique narrative, the examples used come from many independent corporations in

many industries. The film jumps around from company to company and problem to problem. Overall, the film does a decent job at making people think about whether corporations are good or not, but can still be difficult to follow. Using *Fresh* as another example, the film chooses to stay focused on issues solely relating to agriculture. They seamlessly illustrate relationships between the different aspects of the industry. Keeping a film more focused allows you to keep the deep attention of the viewers.

While many other characteristics and techniques exist, these are the ones that I relate with the most. In some instances it may be appropriate to use aspects of fear and anger, but this may not resonate well with a broad audience.

3) Describe ways that mainstream media is a sustainability problem; referencing at least four examples from films you watched this semester.

Mainstream media can be a sustainability problem for a variety of reasons. In *The Corporation*, we saw how mainstream media outlets like Fox News abuse their media power by selectively choosing stories to air or not air. In the case of the film, upper level managers threatened journalists, and said they would be let go if they did not drop the story. The journalists ended up being fired because they refused to drop the story. The journalists filed a lawsuit and Fox proceeded to drag out the trial and bully the reporters with their corporate lawyers. Another example of mainstream media being a sustainability problem is highlighted in *The Yes Men Fix the World*. We see how mainstream media outlets, like the BBC, will take on stories without doing anything to verify credentials of the story or interviewees. The Yes Men were able to get on a global television network to play their tricks. Don't get me wrong, I love the Yes Men and what they do, but having them be able to

get onto the BBC as a Dow Chemical representative should be alarming. What would the implications be if someone with bad intentions were able to sneak onto networks in this way? Another problem is that mainstream and popular media outlets are controlled by a handful of fortune 500 companies. In order to fully utilize these channels you must own them or have enough money to buy into them. This phenomenon keeps mainstream media exclusive to those with money. In *The Persuaders*, we see how advertisers take advantage of mainstream media outlets with product placement, commercials, billboards, print ads, etc. The prime advertising space is only available to the largest of companies. Advertisers use sneaky tactics like focus groups to manipulate consumers buying decisions. Mainstream media is one of the biggest drivers behind United States consumerism. Another example relates to the excerpts we have watched from John Stuart and Stephen Colbert. Traditional news networks such as FOX, NBC, and CNN will choose not to air certain controversies and scandals because they are afraid of how politicians and big businesses will react. Mainstream outlets selectively cover topics. If it was not for bold comedians like John Stuart and Stephen Colbert, many stories, controversies, and scandals would never make it onto television. All the examples above illustrate problems associated with mainstream media outlets; thankfully outlets like the Internet have allowed slight balance to be restored to information sharing.

4) Describe how the advertising industry a sustainability problem. Discuss the environmental implications of “communication for commerce,” the effort to create emotional connections between consumers, commodities and companies, and the cultivation of “loyalty beyond reason” (*The Persuaders*). Also discuss whether sustainability advocates should borrow techniques from the adverting industry to advance *their* message.

While not inherently bad, the modern advertising industry has a big impact on modern day United States’ consumerism, and is also an influencing factor in several other sustainability

problems. First of all, the sole purpose of advertising is to drive commerce. If advertising communication can make someone feel good, that is great; however, it still must drive commerce. Because of this market researchers and advertisers must conduct numerous focus groups and studies finding exactly what words and visuals will manipulate consumers into purchasing their product. These methods take advantage of consumer's weak spots and drive unnecessary consumption. Advertising takes advantage of human emotion, often making it difficult for consumers to make rational purchasing decisions. Along with products, advertising mediums such as TV spots, billboards, and digital banners have become commodities. Advertisers dream of making consumers loyal beyond reason, meaning that consumers will subconsciously buy and desire specific goods without knowing where or when they were exposed. This can also be related for consumers' desire to demand products simply because their peers have them. The main sustainability problem associated with advertising is that advertising is the number one driver of consumption, as consumption increases, so do energy and resource inputs. Another significant sustainability problem is that the advertising industry has become very exclusive. Mainstream outlets with the largest reach are only affordable to a relatively small group of companies. Advertising is a barrier to information transparency and creates an artificial sense of lower consumer choice. In other words, the typical consumer will most likely only be exposed to products that are advertised the most, making it difficult for environmentally and socially responsible products to become visible in mainstream markets. Stretching the argument a little further, new digital mediums such as billboards, projectors, and "decal vehicles" are highly energy intensive to be operating around the clock. All this energy is going towards promoting further consumption. Another significant effect that advertising

has yielded is the decrease in consumer shopping at small businesses. It used to be that consumers would shop on main streets because they could stroll down the sidewalk and see all the deals. However, in a world with computers, email, smart phones, and mobile advertising, consumers always have access to web specials, box store sales, etc. “Value” shopping and couponing have become very popular, which are often just tricks to drive consumption. Finally, conservatives like Frank Luntz will use linguistics, market research, and advertising to get Republicans elected in government positions. Often men like Luntz are responsible for the language behind the “anti-environmental” movement. While the results of the modern advertising are sustainability problems, sustainability advocates can take some advice from the industry. Focus groups could be very successful in deciding how to sell sustainable products to consumers or in getting sustainability-advocating politicians elected. Grass roots and other advocacy sustainability advocacy organizations could take a somewhat more scientific or business like approach to advertising and sharing their cause, such as monitoring return on investment on various advertising channels, hiring consultants to make their message attractive to the general public, and so forth. The main thing that sustainability advocates need to think of is how they speak to politicians, conservatives, and people who question sustainability concepts. It should be obvious that how you would talk to a fellow sustainability advocate is not how you should talk to a politician to try to win their vote on an issues. Advocacy organizations must become better at adjusting their outgoing communication depending on who the audience is.

16) Write two exam questions that creatively test students’ analytic sophistication about environmental sustainability. Answer one of these questions.

The following questions are designed for an entry-level sustainability student, for example, a college student taking their first course in sustainability.

- A) Keeping ecological and systematic thinking in mind, describe in detail a sustainability solution that uses the byproducts or the waste of processes that were previously thought to be unsustainable. An example being the collection of methane from cow manure to generate power.
- B) State one problem and one proposed solution for the following matrix factors: political, legal, economic, technological, media and informational, educational, behavioral, cultural, and ecological.**

An example of a political problem plaguing sustainability is the two-party system in the United States. Often on the issue of environmental sustainability, the two dominant parties, democrats and redumblicans, are on the complete opposite end of the sustainability spectrum. One party can take over and virtually erase all progress that was made. Additionally, concerned citizens do not have the leverage to threaten the two-parties with an alternative. A solution would be to eradicate the two-party system, therefore leveling the playing ground for libertarians, the green party, independents, and other smaller parties. Essentially this would force politicians to respond to citizen's requests because of the new threat of having to compete against many parties. As far as the legal matrix factor, an example would be the limited liability that business owners and investors get as protection. Individuals are seldom held accountable for their actions in influencing business decisions. The legal form of corporations protects individuals from having to be accountable for their decisions. We also see a similar phenomenon in regards to employment. How employees have limited liability in the sense that the firm can be held accountable for the individual's actions. A proposed solution would be for our legal system to shift liability back into the hands of the individuals, making people responsible for their own actions. In terms of the economic matrix factor, despite what government officials may say, our economy and tax system have always been

designed so that the rich become richer and the poor become poorer. While the absurd amount of loopholes are open to nearly all people, not all people have the education or resources to benefit from the loopholes, except the rich of course. A solution would be to implement a flat-tax rate and close all loopholes. If the government wants to stimulate spending they can implement a temporary tax break that everyone would enjoy, not just certain income levels. An example of a technological problem would be the inappropriate use of hydraulic-fracturing technology. Corporations at the allowance of the government are using a technology that is inappropriate at the given time. It is a trend that we seem to disregard the risk that is associated with the premature use of a technology. A solution would be to have more strict regulations on using invasive or destructive energy harvesting techniques. We should still continue research on fine-tuning natural gas harvesting, but in the mean time should start switching over to more renewable and cleaner sources. An example of a media and informational problem is the imbalance of power in mainstream media outlets. A small group of very large multinational companies own the majority the mainstream media outlets, thus reserving this space for personal interests and others who have the money to buy space. A proposed solution would be to strengthen anti-trust regulation. Companies like News Corp should not be able to own almost 10 prime television channels. We have busted apart railroad and telephone companies in the past and now we must do the same with news networks. An example of an educational problem is the lack of sustainability education in public schools. Sustainability theory should be taught to children starting at a young age. A solution would be to either mandate or

incentivize schools to incorporate sustainability into their curriculums. A behavioral problem in the United States is excess consumerism. US shoppers tend to irrationally purchase products for a variety of reasons including keeping up with the Joneses, having excess capital, and soothing emotional instability. Considering you cannot tell someone to not buy goods, a solution would be to make those goods and services sustainable. At the very least, this would decrease the amount of waste and resources involved in the production of consumed goods and resources. A cultural problem in the United States is the belief that we are superior to all other nations. Many smaller and even more populated countries have already made decent progress towards implementing sustainable change. But in the United States, a large portion of citizens believe that we should not have to “compromise” our standard of living. A solution for this issue relates to the educational factors. In many ways, sustainability can enhance standard of living, but many are unaware of this. Finally, in the United States we continue to neglect ecological principles in the design of infrastructure, agriculture, and many other areas. This relates to the previous factor about appropriate use of technology. Instead, in the United States we must adopt principles of appropriate design. That being said, in the United States and across the globe, we are starting to see an increase in architects, product designers, and scientists who take ecological factors into strong consideration. On a national level, government agencies should start to implement large-scale infrastructure projects that are ecologically-sound. The bureaucracy in government often impedes upon creating well-designed projects. A solution would be to alter the bidding system the

government uses for finding contractors. Leveling the playing field would allow more sustainable ideas to work their way into large-scale government projects.